MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT CXCR4 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1004-1

Lot Number: C1004-1-101505

Quantity: 1 vial (2 x 10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human CXCR4 cDNA (GenBank Accession Number NM_003467) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 μg/mL puromycin

Stability: Stable in culture for minimum of two months

Background: CXCR4 is a receptor for the C-X-C chemokine SDF-1 (Stromal Cell-Derived Factor 1). It is involved in haematopoiesis and cardiac ventricular septum formation, and plays an essential role in vascularization of the gastrointestinal tract, cerebellar development and survival of hippocampal-neuron of central nerve system. CXCR4 also acts as a primary receptor for some HIV-2 isolates and as a co-receptor with CD4 for HIV-1 X4 viruses.

Application: Functional assays

Figure 1

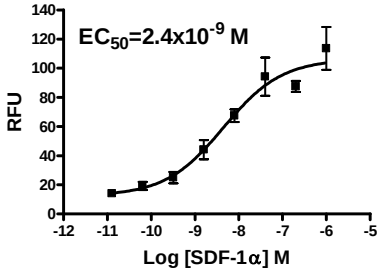

Figure 2

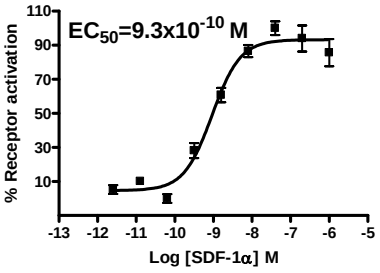

Figure 3

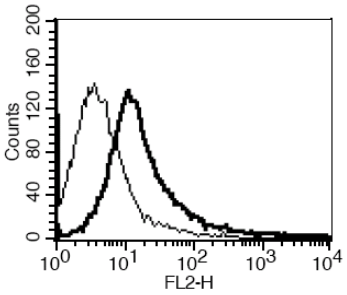

Figure 1. Dose-dependent calcium flux upon treatment with ligand, monitored with FlexStation. **Figure 2**. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC). **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Hernandez *et al.* (2003) Mutations in the chemokine receptor gene CXCR4 are associated with WHIM syndrome, a combined immunodeficiency disease. *Nat Genet* 34:70-74.

Juarez *et al.* (2004) Chemokines and their receptors as therapeutic targets: the role of the SDF-1/CXCR4 axis. *Curr Pharm Des* 10:1245-1259.

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